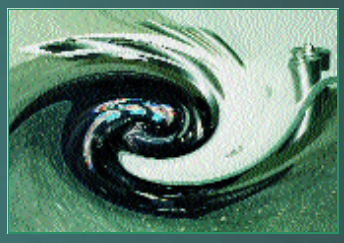
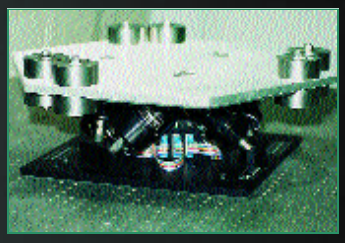
MISCELLANEOUS





Nineteen ninety-five was a banner year for innovation in the United States. That year, the U.S. Patent and Trademark Office received the largest number of applications for patents and designs to date, according to the 1995 Commissioners' Annual Report. As a result of these applications, 64,562 residents of the United States received patents in such diverse areas as mechanical, electrical, and chemical engineering.[1]

Innovations in these areas offer significant improvements to the transportation, utility, semiconductor, and space industries. Breakthroughs in electrical engineering can facilitate the development of high-speed trains to reduce traffic congestion between major cities. They can also enable superefficient power-control devices to double power line capacity. Innovations in chemical engineering can lead to better materials for vibration suppression in semiconductor manufacturing equipment and can help in deploying inflatable space structures.

Today's Market

Electric utilities and semiconductor manufacturers can benefit greatly from technological innovations. Deregulation is forcing more competitiveness in the electric power industry, which accounted for $208 billion in revenues from retail sales to ultimate customers in 1995.[2] New technologies can help electric utilities establish a competitive advantage, improve efficiency, and trim costs. Reducing production costs is a primary concern for computer chipmakers, whose sales are estimated to reach $197.6 billion in 1999, up from $101.8 billion in 1994.[3] Innovative technologies can suppress vibrations in manufacturing equipment, reducing errors that add to production costs.

Tomorrow's Opportunity

BMDO has funded various technologies for ballistic missile defense that can also provide companies with innovative solutions to help the United States build a stronger economy. The following section describes five examples.

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[1]U.S. Patent and Trademark Office. 1995. Setting the course for our future, a Patent and Trademark Office review, Fiscal Year 1995. World Wide Web at http://www.uspto.gov/web/offices/com/annual/annual.html.

[2]Energy Information Agency. 1996. Electric Power Annual 1995, Vol. 1, Chapt. 1. World Wide Web at http://www.eia. doe.gov/cneaf/pubs_html/epa_1995/volume1/chapter1.html.

[3]Semiconductor Industry Association. 1995. Semiconductor forecast summary 1995–1998. World Wide Web at http://www.semichips.org.indstats.htm.